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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/809,787 | 03/26/2004 | Paul Moroz | 071469-0306093 | 7153 |

909 7590 11/03/2005

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| EXAMINER |
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FUQUA, SHAWNTINA T

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| ART UNIT | PAPER NUMBER |
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3742

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/809,787 | Applicant(s) MOROZ, PAUL | |
| | Examiner Shawntina T. Fuqua | Art Unit 3742 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6-8, 14-17, 20-27, 30-36, 39-41, and 47-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaper et al (US5802856).

Schaper et al discloses an apparatus and method for controlling a temperature of a substrate comprising a substrate table (34), a first thermal assembly of a plurality of variously shaped (Figures 6, 7A-B) thermoelectric modules (36) in communication with substrate table and completely underlie the substrate table (Figures 3, 4A, 4B), pins (42), separate power supplies (56, 58, 60, 62), temperature sensor (46, 48, 50, 52), a second thermal assembly which carries a heat transfer fluid (38, 44) for heating or cooling and which acts like a heat sink (column 4, lines 55-58), thermoelectric zones (column 6, lines 27-38; Figure 6), the second thermal assembly controlled by a fast temperature response (column 7, lines 36-40), and a control unit (54) to prevent temperature overshooting and during fast heating the temperature of the thermal surface increases quickly and then slowly when close to desired temperature and during fast cooling the temperature of the thermal surface decreases quickly and then slowly when close to desired temperature (column 7, lines 36-65).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 13, 19, 29, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaper et al as applied to claims 1, 6-8, 14-17, 20-27, 30-36, 39-41, and 47-48 above, and further in view of Hiramatsu et al (US6731496).

Schaper et al discloses all of the recited subject matter except a Peltier element, electrostatically clamping substrate, RF power, and a mechanical clamp. Hiramatsu et al discloses a Peltier element (column 10, lines 13-14), electrostatically clamping substrate (column 5, lines 10-25), and RF power (column 9, lines 65-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the Peltier element, electrostatically clamping substrate, and RF power of Hiramatsu et al in the apparatus/method of Schaper et al because, a Peltier element, electrostatically clamping substrate, RF power, and a mechanical clamp allows the substrate to be heated/cooled and secured more efficiently.

5. Claims 4-5, 9-12, 18, 28, and 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaper et al as applied to claims 1, 6-8, 14-17, 20-27, 30-36, 39-41, and 47-48 above, and further in view of Oda et al (US6474986).

Schaper et al discloses all of the recited subject matter except thermoelectric modules with a space defined therebetween, a gas conduit, controlling the temperature comprises supplying a high positive and negative voltage. Oda et al discloses thermoelectric modules with

a space defined therebetween, a gas conduit, controlling the temperature comprises supplying a high positive and negative voltage (column 12, line 26-column 13, line 12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included thermoelectric modules with a space defined therebetween, a gas conduit, controlling the temperature comprises supplying a high positive and negative voltage of Oda et al in the apparatus/method of Schaper et al because, thermoelectric modules with a space defined therebetween, a gas conduit, and controlling the temperature by supplying a high positive and high negative voltage allows the substrate to be processed more efficiently.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (571) 272-4779. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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stf

October 30, 2005

A handwritten signature in black ink, reading "Shawntina Fuqua". The signature is written in a cursive, flowing style with a large initial 'S'.

Shawntina Fuqua
Patent Examiner
Art Unit 3742